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Notice of Allowability	Application No.	Applicant(s)	
	09/882,290	ISHIDA ET AL.	
	Examiner	Art Unit	
	SOPHIA VLAHOS	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/8/2006.
2. ☒ The allowed claim(s) is/are 1-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
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| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|--|

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see section "Remarks" pages 10-13 filed 9/8/2006, with respect to the rejection of independent claims 1 and 17 under 35 U.S.C. § 103(a) have been fully considered and are persuasive. The rejection of claims 1 and 17 has been withdrawn.

Allowable Subject Matter

2. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of the record fails to teach or suggest alone or in combination: An apparatus for measuring a jitter of a signal under measurement comprising: a phase error estimator for obtaining phase errors between the approximated zero-crossing and the corresponding zero-crossing points of the signal under measurement as a zero-crossing phase error data sequence, and for obtaining time intervals between adjacent zero-crossing points as a zero-crossing time interval sequence; and a period jitter estimator for obtaining a period jitter sequence of the signal under measurement from the zero-crossing phase error data sequence, the zero-crossing time interval time sequence and a fundamental period of the signal under measurement, as recited in claim 1.

Claims 1-16 are allowed.

The prior art of the record fails to teach or suggest alone or in combination:

A method of measuring a jitter of a signal under measurement comprising: a step of estimating a zero-crossing phase error data sequence by obtaining sampling points close to corresponding zero-crossing points as approximated zero-crossing points and by calculating phase errors between the approximated zero-crossing points and the corresponding zero-crossing points; a step of obtaining a zero-crossing time interval sequence by calculating time intervals between adjacent approximated zero-crossing points; and a step of obtaining a period jitter sequence of the signal under measurement from the zero-crossing phase error data sequence, the zero-crossing time interval sequence and a fundamental period of the signal under measurement, as recited in claim 17.

Claims 17-31 are allowed.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 6,775, 321 to Soma et. al.

U.S. 6,795,496 to Soma et. al.,

U.S. 6,687,629 to Soma et. al.,

U.S. 6,525,523 to Soma et. al.,

U.S. 6,522,122 to Watanabe et. al.,
U.S. 6,460,001 to Yamaguchi et. al.,
U.S. 6,400,129 to Yamaguchi et. al.,
U.S. 6,291,979 to Soma et. al.,
U.S. 6,133,783 to Stockman et. al.,
U.S. 2002/0136337 to Chatterjee et. al.,
U.S. 6,240,130 to Burns et. al.,
U.S. 5,923,706 to Marz
U.S. 2002/0103609 to Kuyel

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SOPHIA VLAHOS whose telephone number is 571 272 5507. The examiner can normally be reached on MTWRF 8:30-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SV

11/24/2006


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER